

Unexplained symptoms

There are a wide variety of psychiatric terms for patients who have symptoms for which no organic cause can be found:

Somatisation disorder:

- multiple physical SYMPTOMS present for at least 2 years
- patient refuses to accept reassurance or negative test results

Hypochondrial disorder:

- persistent belief in the presence of an underlying serious DISEASE, e.g. cancer
- patient again refuses to accept reassurance or negative test results

Conversion disorder:

- typically involves loss of motor or sensory function
- the patient doesn't consciously feign the symptoms (factitious disorder) or seek material gain (malingering)
- patients may be indifferent to their apparent disorder - la belle indifference - although this has not been backed up by some studies

Aphonia:

Aphonia describes the inability to speak. Causes include:

- recurrent laryngeal nerve palsy (e.g. Post-thyroidectomy)
- psychogenic Aphonia is considered part of conversion disorder

Dissociative disorder:

- dissociation is a process of 'separating off' certain memories from normal consciousness
- in contrast to conversion disorder involves psychiatric symptoms e.g. Amnesia, fugue, stupor
- dissociative identity disorder (DID) is the new term for multiple personality disorder as is the most severe form of dissociative disorder

Munchausen's syndrome:

- also known as factitious disorder
- the intentional production of physical or psychological symptoms

Malingering:

- fraudulent simulation or exaggeration of symptoms with the intention of financial or other gain

Globus hystericus: is part of the anxiety disorders and thought to be due to somatisation.

This sensation is fluctuating and there is no mechanical problem. It is a diagnosis of exclusion.

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Sleep paralysis

- Sleep paralysis is a common condition characterized by transient paralysis of skeletal muscles which occurs when awakening from sleep or less often while falling asleep.
- It is thought to be related to the paralysis that occurs as a natural part of REM (rapid eye movement) sleep.
- Sleep paralysis is recognised in a wide variety of cultures

Features:

- 1) paralysis - this occurs after waking up or shortly before falling asleep
- 2) hallucinations - images or speaking that appear during the paralysis

Management:

- if troublesome clonazepam may be used

Mood (affective) disorders
Depressive disorders
Mania, hypomania and bipolar disorder

Depression

Screening

The following two questions can be used to screen for depression

1. 'During the last month, have you often been bothered by feeling down, depressed or hopeless?'
2. 'During the last month, have you often been bothered by having little interest or pleasure in doing things?'

A 'yes' answer to either of the above should prompt a more in depth assessment.

Assessment:

There are many tools to assess the degree of depression including:

- ✓ The Hospital Anxiety and Depression (HAD) scale and
- ✓ The Patient Health Questionnaire (PHQ-9).

1) Hospital Anxiety and Depression (HAD) scale

- consists of 14 questions, 7 for anxiety and 7 for depression
- each item is scored from 0-3
- produces a score out of 21 for both anxiety and depression
- severity:
 - ⇒ 0-7 normal,
 - ⇒ 8-10 borderline,
 - ⇒ 11+ case
- patients should be encouraged to answer the questions quickly

2) Patient Health Questionnaire (PHQ-9)

- Asks patients 'over the last 2 weeks, how often have you been bothered by any of the following problems?'
- 9 items which can then be scored 0-3
- includes items asking about thoughts of self-harm
- depression severity:
 - ⇒ 0-4 none,
 - ⇒ 5-9 mild,
 - ⇒ 10-14 moderate,
 - ⇒ 15-19 moderately severe,
 - ⇒ 20-27 severe

NICE use the DSM-IV criteria to grade depression:

- 1) Depressed mood most of the day, nearly every day
- 2) Markedly diminished interest or pleasure in all, or almost all, activities most of the day, nearly every day
- 3) Significant weight loss or weight gain when not dieting or decrease or increase in appetite nearly every day
- 4) Insomnia الأرق or hypersomnia فرط النوم nearly every day
- 5) Psychomotor agitation or retardation nearly every day
- 6) Fatigue or loss of energy nearly every day
- 7) Feelings of worthlessness or excessive or inappropriate guilt nearly every day
- 8) Diminished ability to think or concentrate or indecisiveness nearly every day
- 9) Recurrent thoughts of death, recurrent suicidal ideation without a specific plan, or a suicide attempt or a specific plan for committing suicide

Early morning waking is a classic somatic symptom of depression and develops earlier than general insomnia

Subthreshold depressive symptoms	Fewer than 5 symptoms
Mild depression	• Few, if any, • symptoms in excess of the 5 required to make the diagnosis, and symptoms result in only minor functional impairment
Moderate depression	Symptoms or functional impairment are between 'mild' and 'severe'
Severe depression	• Most symptoms and • The symptoms markedly interfere with functioning. • Can occur with or without psychotic symptoms

Management Of Depressive Disorders

Physical

- Stop depressing drugs (alcohol, steroids)
- Regular exercise (good for mild to moderate depression)
- Antidepressants (choice determined by side-effects, co-morbid illnesses and interactions)
- Adjunctive drugs (e.g. lithium; if no response to two different antidepressants)
- Electroconvulsive therapy (ECT) (if life-threatening or non-responsive)

Psychological

- Education and regular follow-up by same professional
- Cognitive behaviour therapy (CBT)
- Other indicated psychotherapies (couple, family, interpersonal)

Social

- Financial: eligible benefits, debt counselling
- Employment: acquire or change job or career
- Housing: adequate, secure tenancy, safe, social neighbours
- Young children: child-care support

Treatments combined

- The most effective treatment is a mixture of CBT and an antidepressant

Tricyclic Antidepressants

- TCAs are used less commonly now for depression due to side-effects & toxicity in overdose.
- They are however used widely in the treatment of **neuropathic pain**, where smaller doses are typically required.

Common side-effects:

Due to antimuscarinic side effects more common with **imipramine**

- 1) **Drowsiness**, **tachycardia**
- 2) dry mouth
- 3) blurred vision, **Mydriasis** (dilated pupils)
- 4) constipation
- 5) urinary retention

Choice of tricyclic:

- 1) **low-dose amitriptyline** is commonly used in:
 - the management of **neuropathic pain** and
 - the prophylaxis of **headache** (both tension and migraine)
- 2) **lofepramine** has a lower incidence of toxicity in overdose
- 3) **amitriptyline** and **dosulepin** (dothiepin) are considered **the most dangerous in overdose**

More sedative	Less sedative
Amitriptyline Dosulepin Clomipramine Trazodone*	Imipramine Lofepramine Nortriptyline

*trazodone is technically a 'tricyclic-related antidepressant'

Tricyclic overdose

- **Overdose of TCAs is a common presentation to emergency departments**
- Amitriptyline and dosulepin (dothiepin) are particularly dangerous in overdose.

Early features relate to **anticholinergic** properties:

- 1) **Agitation**, dry mouth,
- 2) **dilated pupils**, blurred vision
- 3) **sinus tachycardia**,
- 4) constipation, urinary retention

Features of severe poisoning include:

- 1) arrhythmias
- 2) seizures
- 3) metabolic acidosis
- 4) coma

ECG changes include:

- 1) sinus tachycardia
- 2) widening of QRS
- 3) prolongation of QT interval
 - ⇒ Widening of QRS > **100ms** is associated with an increased risk of **seizures**,
 - ⇒ whilst QRS > **160ms** is associated with ventricular **arrhythmias**

Management:

- 1) **IV bicarbonate** may reduce the risk of seizures and arrhythmias in severe toxicity
- 2) Arrhythmias:
 - ⇒ Response to **lignocaine (1b)** is **variable** and it should be emphasized that correction of acidosis is the first line in management of tricyclic induced arrhythmias
 - ⇒ **Class 1a** (e.g. Quinidine) and **class 1c** antiarrhythmics (e.g. Flecainide) are **contraindicated** as they **prolong depolarisation**.
 - ⇒ **Class III** drugs such as amiodarone should also be **avoided** as they **prolong the QT interval**.
- 3) Intravenous lipid emulsion (**intralipid**) is increasingly used to bind free drug and reduce toxicity
- 4) Dialysis is **ineffective** in removing tricyclics (however can be used for acidosis refractory to NaHCO₃)

TCAs can cause SIADH

If BZD + TCA toxicity do not give flumazenil as it reduces its seizure threshold

St John's Wort

- shown to be as effective as **tricyclic antidepressants** in the treatment of mild-moderate depression

Mechanism:

- thought to be **similar to SSRIs** (although noradrenaline uptake inhibition has also been demonstrated)
- NICE advise 'may be of benefit in mild or moderate depression, but its use should not be prescribed or advised because of uncertainty about appropriate doses, variation in the nature of preparations, and potential serious interactions with other drugs'

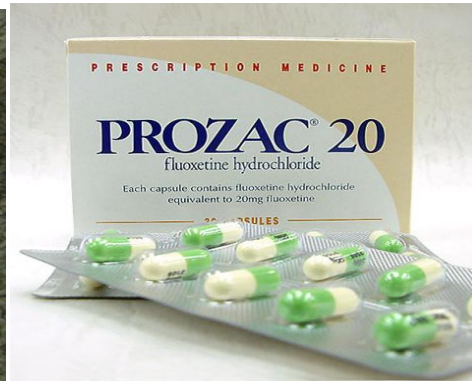
Adverse effects:

- 1) profile in trials similar to placebo
- 2) can cause **serotonin syndrome**
- 3) **Inducer of P450 system**, therefore:
 - ⇒ Decreased levels of drugs such as warfarin, ciclosporin.
 - ⇒ The effectiveness of the COC may also be reduced

Selective serotonin reuptake inhibitors

SSRIs are considered **first-line treatment** for the majority of patients with **depression**.

- 1) **Citalopram** (although re: QT interval) and **fluoxetine** are currently **the preferred SSRIs**
- 2) **Sertraline** is **useful post myocardial infarction** as there is more evidence for its safe use in this situation than other antidepressants
- 3) SSRIs should be used with caution in children and adolescents. **Fluoxetine** is **the drug of choice** when an antidepressant is indicated



Adverse effects:

- 1) **gastrointestinal symptoms:**
 - ☒ the most common side-effect
 - ☒ There is an increased risk of **GIT bleeding**.
 - ☒ A proton pump inhibitor should be prescribed if a patient is also taking a NSAID
- 2) Patients should be counselled to be vigilant for **increased anxiety** and **agitation** after starting a SSRI
- 3) Fluoxetine and paroxetine have a higher propensity for **drug interactions**

Citalopram and the QT interval

- The Medicines and Healthcare products Regulatory Agency (MHRA) released a **warning on the use of citalopram in 2011**
- It advised that citalopram and escitalopram are associated with **dose-dependent QT interval prolongation**
- **Should not be used in those with:**
 - 1) congenital long QT syndrome;
 - 2) known pre-existing QT interval prolongation;
 - 3) or in combination with other medicines that prolong the QT interval
- **The maximum daily dose is now:**
 - ⇒ 40 mg for adults;
 - ⇒ 20 mg for patients older than 65 years;
 - ⇒ 20 mg for those with hepatic impairment

Interactions:

- 1) **NSAIDs:** NICE guidelines advise 'do not normally offer SSRIs', but if given co-prescribe a **proton pump inhibitor**
 - 2) **Warfarin / heparin:** NICE guidelines recommend avoiding SSRIs and considering mirtazapine (**sertraline** and **citalopram** appear to be the safest antidepressants to prescribe with warfarin).
 - 3) **Aspirin:** see above
 - 4) **Triptans:** avoid SSRIs
- Following the initiation of antidepressant therapy patients should **normally** be reviewed by a doctor after 2 weeks.
 - For patients **under the age of 30 years** or at **increased risk of suicide** they should be reviewed after 1 week.
 - If a patient makes a good response to antidepressant therapy they should continue on treatment for at least **6 months after remission** as this reduces the risk of relapse.
 - When stopping a SSRI the dose should be gradually reduced **over a 4 week period** (this is not necessary with fluoxetine).
 - **Paroxetine** has a higher incidence of discontinuation symptoms.

Discontinuation symptoms:

- 1) increased mood change
- 2) restlessness
- 3) unsteadiness
- 4) paraesthesia
- 5) difficulty sleeping
- 6) sweating
- 7) GIT symptoms: pain, cramping, diarrhoea, vomiting

Citalopram	1) the preferred SSRIs 2) prolong the QT interval
Fluoxetine	1) the preferred SSRIs 2) the drug of choice in children and adolescents 3) Can be stopped abruptly 4) fluoxetine and paroxetine have a higher propensity for drug interactions 5) Postnatal depression: fluoxetine is best avoided due to a long half-life
Sertraline	1) useful post myocardial infarction 2) Postnatal depression may be used if symptoms are severe whilst they are secreted in breast milk it is not thought to be harmful to the infant
Paroxetine	1) Postnatal depression may be used if symptoms are severe whilst they are secreted in breast milk it is not thought to be harmful to the infant 2) treatments for PTSD 3) fluoxetine and paroxetine have a higher propensity for drug interactions 4) Paroxetine has a higher incidence of discontinuation symptoms
Mirtazapine	1) NICE guidelines recommend avoiding SSRIs and considering mirtazapine if the pt is taking warfarin or heparin 2) treatments for PTSD

sertraline and citalopram appear to be the safest antidepressants to prescribe with warfarin

Mirtazapine: العلم فقط

- Tetracyclic structure different from SSRIs, TCAs and MAOIs;
- through its central presynaptic alpha2-adrenergic antagonist effects, stimulates norepinephrine and serotonin release;
- potent antagonist of 5-HT2 and 5-HT3 serotonin and histamine receptors; is a moderate alpha1 adrenergic and muscarinic antagonist

Electroconvulsive therapy

- Electroconvulsive therapy is a useful treatment option for patients with severe depression refractory to medication or those with psychotic symptoms.
- The only absolute contraindication is raised intracranial pressure.

Short-term side-effects:

- 1) Headache
- 2) Nausea
- 3) Short term memory impairment
- 4) Memory loss of events prior to ECT
- 5) Cardiac arrhythmia

Long-term side-effects:

- some patients report impaired memory

Cognitive behavioural therapy

Main points

- Useful in the management of depression and anxiety disorders
- Usually consists of one to two hour sessions once per week
- Should be completed within 6 months
- Patients usually get around 16-20 hours in total

Seasonal affective disorder

- Seasonal affective disorder (SAD) describes depression which occurs predominately around the winter months.
- Bright light therapy has been shown to be more effective than placebo for patients with SAD

Post-concussion syndrome

Post-concussion syndrome is seen after even minor head trauma

Typical features include:

- 1) Headache
- 2) Fatigue
- 3) Dizziness
- 4) Anxiety/depression

Post-partum mental health problems

Post-partum mental health problems range from the 'baby-blues' to puerperal psychosis.

The Edinburgh Postnatal Depression Scale may be used to screen for depression:

- 10-item questionnaire, with a maximum score of 30
- Indicates how the mother has felt over the previous week
- Score > 13 indicates a 'depressive illness of varying severity'
- Sensitivity and specificity > 90%
- Includes a question about self-harm

Baby-blues	Postnatal depression	Puerperal psychosis
• Seen in around 60-70% of women • Typically seen 3-7 days following birth and is more common in primips • Mothers are characteristically anxious, tearful and irritable	• Affects around 10% of women • Most cases start within a month and typically peaks at 3 months • Features are similar to depression seen in other circumstances	• Affects approximately 0.2% of women • Onset usually within the first 2-3 weeks following birth • Features include: 1) severe swings in mood (similar to bipolar disorder) and 2) disordered perception (e.g. auditory hallucinations)
✓ Reassurance and support, ✓ the health visitor has a key role	✓ As with the baby blues reassurance and support are important ✓ Cognitive behavioural therapy may be beneficial. ✓ Certain SSRIs such as sertraline and paroxetine* may be used if symptoms are severe** - whilst they are secreted in breast milk it is not thought to be harmful to the infant	✓ Admission to hospital is usually required ✓ There is around a 20% risk of recurrence following future pregnancies

*paroxetine is recommended by SIGN because of the low milk/plasma ratio

**fluoxetine is best avoided due to a long half-life

Hypomania vs. mania

The presence of psychotic symptoms differentiates mania from hypomania

Psychotic symptoms:

- 1) delusions of grandeur
- 2) auditory hallucinations

The following symptoms are common to both hypomania and mania:

- 1) Mood:
 - predominately elevated
 - irritable
- 2) Speech and thought:
 - pressured
 - flight of ideas
 - poor attention
- 3) Behaviour:
 - insomnia
 - loss of inhibitions: sexual promiscuity, overspending, risk-taking
 - increased appetite

Suicide

Factors associated with risk of suicide following an episode of deliberate self harm:

- 1) Efforts to avoid discovery
- 2) Planning
- 3) Leaving a written note
- 4) Final acts such as sorting out finances
- 5) Violent method

These are in addition to standard risk factors for suicide

- 1) Male sex
- 2) Advancing age
- 3) Unemployment or social isolation
- 4) Divorced or widowed
- 5) History of mental illness (depression, schizophrenia)
- 6) History of deliberate self harm
- 7) Alcohol or drug misuse

General anxiety disorder

- This occurs in 4–6% of the population and is more common in women.
- Symptoms are persistent and often chronic.

Grief reaction

- It is normal for people to feel sadness and grief following the death of a loved one and this does not necessarily need to be medicalised.
- However, having some understanding of the potential stages a person may go through whilst grieving can help determine whether a patient is having a 'normal' grief reaction or is developing a more significant problem.

One of the most popular models of grief divides it into 5 stages:

1) **Denial:**

- This may include a feeling of numbness and also pseudohallucinations of the deceased, both auditory and visual.
- Occasionally people may focus on physical objects that remind them of their loved one or even prepare meals for them

2) **Anger:** This is commonly directed against other family members and medical professionals

3) **Bargaining**

4) **Depression**

5) **Acceptance**

- It should be noted that many patients will not go through all 5 stages.
- Abnormal, or atypical, grief reactions are more likely to occur in women and if the death is sudden and unexpected. Other risk factors include a problematic relationship before death or if the patient has not much social support.

Features of atypical grief reactions include:

- 1) Delayed grief: sometimes said to occur when more than 2 weeks passes before grieving begins.
- 2) Prolonged grief: difficult to define. Normal grief reactions may take up to and beyond 12 months

Post-traumatic stress disorder

- Post-traumatic stress disorder (PTSD) can develop in people of any age following a traumatic event, for example a major disaster or childhood sexual abuse.
- It encompasses what became known as 'shell shock' following the First World War.
- One of the DSM-IV diagnostic criteria is that symptoms have been present for more than one month

Features:

- 1) **Re-experiencing:** flashbacks, nightmares, repetitive and distressing intrusive images
- 2) **Avoidance:** avoiding people, situations or circumstances resembling or associated with the event
- 3) **Hyperarousal:** hypervigilance for threat, exaggerated startle response, sleep problems, irritability and difficulty concentrating
- 4) **Emotional numbing** - lack of ability to experience feelings, feeling detached from other people
- 5) Depression
- 6) Drug or alcohol misuse
- 7) Anger
- 8) Unexplained physical symptoms

Management:

- 1) Following a traumatic event single-session interventions (often referred to as debriefing) are not recommended
- 2) Watchful waiting may be used for mild symptoms lasting less than 4 weeks
- 3) Military personnel have access to treatment provided by the armed forces
- 4) Trauma-focused cognitive behavioural therapy (CBT) or eye movement desensitisation and reprocessing (EMDR) therapy may be used in more severe cases
- 5) Drug treatments for PTSD should not be used as a routine first-line treatment for adults. If drug treatment is used then paroxetine or mirtazapine are recommended

Obsessive compulsive disorder

(OCD)

Pathophysiology:

- some research suggest childhood group A beta-haemolytic streptococcal infection may have a role

Associations:

- 1) Depression (30%)
- 2) Schizophrenia (3%)
- 3) Sydenham's chorea
- 4) Tourette's syndrome
- 5) Anorexia nervosa

Alcohol withdrawal

Mechanism:

- Chronic alcohol consumption:
 - 1) Enhances **GABA mediated inhibition** in the CNS (similar to benzodiazepines) and
 - 2) Inhibits NMDA-type glutamate receptors
- Alcohol withdrawal is thought to lead to the opposite (decreased inhibitory GABA and increased NMDA glutamate transmission)

Features:

- symptoms start at **6-12 hours**
- peak incidence of **seizures** at **36 hours**
- Peak incidence of **delirium tremens** is at **72 hours**:
 - ☒ **Visual hallucinations**,
 - ☒ **autonomic instability** (tachycardia, hypertension, and pyrexia),
 - ☒ **obtundation** **تبلد الإحساس** and **confusion**.
 - ☒ **Sweating, tremors** and
 - ☒ **Agitation**

(Autonomic instability and hallucinations are not features of opiate withdrawal).

Management:

- 1) **Benzodiazepines**
- 2) **carbamazepine** also effective in treatment of alcohol withdrawal
- 3) phenytoin is said not to be as effective in the treatment of alcohol withdrawal seizures

Alcohol problem drinking management

Nutritional support:

- SIGN recommends alcoholic patients should receive **oral thiamine** if their 'diet may be deficient'

Drugs used:

- 1) **Benzodiazepines** for **acute withdrawal**
- 2) **Disulfiram**:
 - **Promotes abstinence**
 - alcohol intake causes severe reaction due to inhibition of **acetaldehyde dehydrogenase**
 - Patients should be aware that even small amounts of alcohol (e.g. in perfumes, foods, mouthwashes) can produce severe symptoms.
 - Contraindications include **IHD** and **psychosis**
- 3) **Acamprosate**:
 - **reduces craving**,
 - known to be a weak antagonist of NMDA receptors,
 - improves abstinence in placebo controlled trials

Benzodiazepines

- Benzodiazepines enhance the effect of the inhibitory neurotransmitter **gamma-aminobutyric acid (GABA)** by increasing the frequency of chloride channels.
- They therefore are used for a variety of purposes:
 - 1) sedation
 - 2) hypnotic
 - 3) anxiolytic
 - 4) anticonvulsant
 - 5) muscle relaxant
- Patients commonly develop a **tolerance** and **dependence** to benzodiazepines and care should therefore be exercised on prescribing these drugs.
- The Committee on Safety of Medicines advises that benzodiazepines are only prescribed for a **short period** of time (**2-4 weeks**).
- The BNF gives advice on how to withdraw a benzodiazepine.
- The dose should be withdrawn in steps of about **1/8** (range 1/10 to 1/4) of the daily dose **every fortnight** كل أسبوعين .
- **A suggested protocol for patients experiencing difficulty is given:**
 - 1) **switch** patients **to** the equivalent dose of **diazepam**
 - 2) reduce dose of diazepam every 2-3 weeks in steps of **2 or 2.5 mg**
 - 3) time needed for withdrawal can vary from 4 weeks to a year or more

Benzodiazepine withdrawal syndrome

- a condition very similar to alcohol withdrawal syndrome:
- Occurs If patients withdraw too quickly from benzodiazepines
- This may occur up to **3 weeks** after stopping a long-acting drug.

Features include:

- 1) Insomnia
- 2) Irritability
- 3) Anxiety
- 4) Tremor
- 5) Loss of appetite
- 6) Tinnitus
- 7) Perspiration عرق
- 8) Perceptual disturbances اضطرابات إدراكية
- 9) Seizures

Schizophrenia

Risk of developing schizophrenia:

- Monozygotic twin has schizophrenia = 50%
- Parent has schizophrenia = 10-15%
- Sibling has schizophrenia = 10%
- No relatives with schizophrenia = 1%

Schizophrenia features:

Schneider's first rank symptoms may be divided into auditory hallucinations, thought disorders, passivity phenomena and delusional perceptions:

A) Auditory hallucinations of a specific type:

- 1) two or more voices discussing the patient in the third person
- 2) thought echo
- 3) voices commenting on the patient's behaviour

B) Thought disorder:

- 1) Occasionally referred to as thought alienation
- 2) thought insertion
- 3) thought withdrawal
- 4) thought broadcasting

C) Passivity phenomena:

- 1) bodily sensations being controlled by external influence
- 2) actions/impulses/feelings - experiences which are imposed on the individual or influenced by others

D) Delusional perceptions:

A two stage process where first a normal object is perceived then secondly there is a sudden intense delusional insight into the objects meaning for the patient e.g. 'the traffic light is green therefore I am the King'.

E) Other features of schizophrenia include

- 1) impaired insight
- 2) incongruity/blunting of affect (inappropriate emotion for circumstances)
- 3) decreased speech
- 4) neologisms: made-up words
- 5) catatonia
- 6) negative symptoms: incongruity/blunting of affect, anhedonia (inability to derive pleasure), alogia (poverty of speech), avolition (poor motivation)

Factors associated with poor prognosis:

- strong family history
- gradual onset
- low IQ
- premorbid history of social withdrawal
- lack of obvious precipitant

Schizophrenia: management

NICE published guidelines on the management of schizophrenia in 2009.

Key points:

- oral atypical antipsychotics are first-line
- cognitive behavioural therapy should be offered to all patients
- close attention should be paid to cardiovascular risk-factor modification due to the high rates of cardiovascular disease in schizophrenic patients (linked to antipsychotic medication and high smoking rates)

Antipsychotics

- Antipsychotics act as **dopamine D2 receptor antagonists**, blocking dopaminergic transmission in the **mesolimbic pathways**
- Conventional antipsychotics are associated with problematic **extrapyramidal side-effects** which has led to the development of atypical antipsychotics such as clozapine
- (**Chlorpromazine** , haloperidol, Phenothiazines)

Extrapyramidal side-effects:

- 1) Parkinsonism
- 2) Acute dystonia (e.g. torticollis, oculogyric crisis)
 - ☒ Diphenhydramine is used in the treatment of acute dystonia.
 - ☒ Benztropine or diazepam can also be used.
- 3) Akathisia (severe restlessness)
- 4) Tardive dyskinesia
(Late onset of choreoathetoid movements, abnormal, involuntary, may occur in 40% of patients, may be irreversible, most common is chewing and pouting of jaw)

The Medicines and Healthcare products Regulatory Agency has issued specific warnings when antipsychotics are used in elderly patients:

- 1) increased risk of **stroke**
- 2) increased risk of **venous thromboembolism**

Other side-effects

- 1) antimuscarinic: dry mouth, blurred vision, urinary retention, constipation
- 2) sedation, weight gain
- 3) **raised prolactin**: galactorrhoea,
- 4) **SIADH**,
- 5) **impaired glucose tolerance**,
- 6) neuroleptic malignant syndrome: pyrexia, muscle stiffness
- 7) reduced seizure threshold (greater with atypicals)
- 8) prolonged QT interval (particularly haloperidol)

Phenothiazines have antiemetic and antipsychotic properties, making them the medication of choice for acute porphyria episodes. Can be used in migraine

Atypical Antipsychotics

- Should be used first-line in patients with schizophrenia, according to 2005 NICE guidelines.
- The main advantage of the atypical agents is a significant reduction in extra-pyramidal side-effects.

Adverse effects of atypical antipsychotics:

- 1) **Weight gain**
- 2) Clozapine is associated with **agranulocytosis** (see below)

The Medicines and Healthcare products Regulatory Agency has issued specific warnings when antipsychotics are used in elderly patients:

- 1) increased risk of **stroke** (especially olanzapine and risperidone)
- 2) increased risk of **venous thromboembolism**

Examples of atypical antipsychotics

- Clozapine
- Olanzapine
- Risperidone
- Quetiapine
- Amisulpride

Clozapine:

- One of the first atypical agents to be developed
- Carries a significant risk of **agranulocytosis** and full blood count monitoring is therefore essential during treatment.
- For this reason clozapine should only be used in patients resistant to other antipsychotic medication

Adverse effects of clozapine:

- 1) **Agranulocytosis** (1%), **neutropaenia** (3%)
- 2) **reduced seizure threshold**
Can induce seizures in up to 3% of patients
- 3) Atypical antipsychotics such as olanzapine/risperidone/clozapine have been associated with **hyperglycaemia** and **insulin resistance**.
The mechanism remains obscure, but withdrawal of the medication may produce resolution of the diabetes.

Neuroleptic Malignant Syndrome

- Neuroleptic malignant syndrome is a rare but dangerous condition seen in patients taking antipsychotic medication.
- Caused by a sudden reduction in dopamine activity, either from blockade of dopamine receptors or withdrawal of dopaminergic agents.
- It carries a mortality of up to 10% and can also occur with atypical antipsychotics.
- It may also occur with dopaminergic drugs (such as levodopa) for Parkinson's disease, usually when the drug is suddenly stopped or the dose reduced.

Features:

- 1) more common in young male patients
- 2) Onset usually in first 10 days of treatment or after increasing dose but it can occur at any time during the treatment with antipsychotic medications.
- 3) Concomitant treatment with lithium or anticholinergics may increase the risk of NMS.
- 4) **Pyrexia**
- 5) **rigidity**
- 6) **Altered mental status**
- 7) Autonomic dysfunction
- 8) tachycardia
- 9) A raised creatine kinase is present in most cases.
- 10) The creatine phosphokinase concentration is always elevated ($>1000 \text{ IU/L}^{-1}$), reflecting myonecrosis secondary to intense muscle contracture.
- 11) A leukocytosis may also be seen

Management:

- 1) stop antipsychotic
- 2) IV fluids to prevent renal failure
- 3) reduction of body temperature with antipyretics.
- 4) dantrolene* may be useful in selected cases
- 5) bromocriptine, dopamine agonist, may also be used

*thought to work by decreasing excitation-contraction coupling in skeletal muscle by binding to the ryanodine receptor, and decreasing the release of calcium from the sarcoplasmic reticulum

Charles Bonnet syndrome

- Charles Bonnet syndrome (CBS) is characterised by persistent or recurrent complex hallucinations (usually visual or auditory), occurring in clear consciousness.
- This is generally against a background of visual impairment (although visual impairment is not mandatory for a diagnosis).
- Insight is usually preserved.
- This must occur in the absence of any other significant neuropsychiatric disturbance.

Risk factors include:

- 1) Advanced age
 - 2) Peripheral visual impairment
 - 3) Social isolation
 - 4) Sensory deprivation
 - 5) Early cognitive impairment
- Charles Bonnet syndrome (CBS) is equally distributed between sexes and does not show any familial predisposition.
 - The most common ophthalmological conditions associated with this syndrome are age-related macular degeneration, followed by glaucoma and cataract.
 - Well-formed complex visual hallucinations are thought to occur in 10-30 percent of individuals with severe visual impairment.
 - Prevalence of Charles Bonnet syndrome (CBS) in visually impaired people is thought to be between 11 and 15 percent.
 - Around a third find the hallucinations themselves an unpleasant or disturbing experience.
 - In a large study published in the British Journal of Ophthalmology, 88% had Charles Bonnet syndrome (CBS) for 2 years or more, resolving in only 25% at 9 years (thus it is not generally a transient experience).

Cox (2014) Negative outcome Charles Bonnet Syndrome. Br J Ophthalmol.

Anorexia Nervosa

Anorexia nervosa is the most common cause of admissions to child and adolescent psychiatric wards.

Epidemiology:

- 90% of patients are female
- predominately affects teenage and young-adult females
- prevalence of between 1:100 and 1:200

Diagnosis: (based on the DSM-IV criteria)

- 1) person chooses not to eat - BMI < 17.5 kg/m², or < 85% of that expected
- 2) intense fear of being obese
- 3) disturbance of weight perception
- 4) amenorrhoea = 3 consecutive cycles

The prognosis of patients with anorexia nervosa remains poor.
Up to 10% of patients will eventually die because of the disorder.

Features:

Anorexia nervosa is associated with a number of characteristic clinical signs and physiological abnormalities which are summarised below

- 1) Reduced BMI
- 2) Bradycardia
- 3) Hypotension
- 4) Enlarged salivary glands

Physiological abnormalities:

- 1) hypokalaemia
- 2) low FSH, LH, oestrogens and testosterone
- 3) low T3
- 4) raised cortisol and growth hormone
- 5) impaired glucose tolerance
- 6) hypercholesterolaemia
- 7) hypercarotinaemia

Bulimia Nervosa

Bulimia nervosa is a type of eating disorder characterised by episodes of binge eating followed by intentional vomiting

Management:

- 1) referral for specialist care is appropriate in all cases
- 2) cognitive behaviour therapy (CBT) is currently consider first-line treatment
- 3) interpersonal psychotherapy is also used but takes much longer than CBT
- 4) pharmacological treatments have a limited role - a trial of high-dose fluoxetine is currently licensed for bulimia but long-term data is lacking

Body dysmorphic disorder

- Body dysmorphic disorder sometimes referred to as dysmorphophobia.
- It is a mental disorder where patients have a significantly distorted body image

Diagnostic and Statistical Manual (DSM) IV criteria:

- Preoccupation with an imagine defect in appearance. If a slight physical anomaly is present, the person's concern is markedly excessive
- The preoccupation causes clinically significant distress or impairment in social, occupational, or other important areas of functioning
- The preoccupation is not better accounted for by another mental disorder (e.g., dissatisfaction with body shape and size in Anorexia Nervosa)

Table 23.32 The main categories of personality disorder	
Borderline (emotionally unstable)	Act impulsively Intense, short-lived emotional attachments
	Chronic internal emptiness Frequent self-harm Transient 'pseudo' psychotic features Strong family history of mood disorders
Paranoid	Extreme sensitivity
	Suspicious Litigious Self-important Preoccupation with conspiracy theories
Schizoid	Emotionally cold and detached Limited capacity to express emotions Indifference to praise or criticism Preference for solitary activities Lack of close friendships Marked insensitivity to social norms
Antisocial	Callous unconcern for the feelings of others Incapacity to maintain enduring relationships Very low tolerance of frustration Incapacity to experience guilt and to learn from experience Tendency to blame others
Histrionic	Self-dramatization, theatricality, suggestibility Shallow and labile emotions Continual seeking for excitement and appreciation Inappropriately seductive appearance and behaviour
Narcissistic	Inflated sense of self-importance Need to be admired Self-referential Arrogant
Anankastic (obsessional)	Feelings of excessive doubt and caution Preoccupation with details, rules and order Perfectionism Excessive conscientiousness, scrupulousness, pedantry and rigidity
Dependent	Encourage others to make their personal decisions Subordinate their needs to others Unwilling to make demands on others Feel unable to care for themselves Preoccupied with fears of being abandoned

Involuntary detention or commitment 1191

Mental Capacity Act

The Mental Capacity Act 2005 uses a functional test of capacity.

In the case of the MCA, the specific tests applied are that the individual must show an ability to Understand and retain the relevant information Weigh their options (and see the consequences of any choice) Communicate their choice.

Although the Mental Capacity Act is specific to England and Wales, the functional test of capacity is used internationally and forms the basis for legislation in Scotland, USA and most English-speaking nations.

Whilst previously expressed wishes should be taken into account, these usually form part of a 'best interests' assessment, which occurs after capacity has been evaluated. The issue of previously expressed wishes would not be a determinant under functional tests of capacity, and mentally capacitated individuals have a right to contradict previously expressed wishes.

Using widely accepted criteria for the functional test of capacity, the answer is inability to understand the relevant information.

Irrational decision making is called the 'rational outcome' approach - it is not a functional test of capacity and is not used, for example, in the Mental Capacity Act as it is too subjective.

Although 'communicating choice' is a criterion in the MCA, loss of a hearing aid would not be considered a sufficiently good reason to judge lack of capacity. The onus is on the doctor to alleviate any remediable communication problem prior to assessing capacity. Many functional tests of capacity have a 'diagnostic hurdle', that is, the presence of mental illness might be a reason to trigger a mental capacity assessment, but mental illness itself is no reason automatically to assume lack of capacity - this would be a 'status' test of capacity.

Tourette syndrome

- Presents before 18 years of age and many children grow out of it.
- The criteria for diagnosis require multiple motor and one or more vocal tics, showing themselves over a year, with not more than three consecutive months tic free.
- The motor tics often have a build up that the patient is aware of, like an itch. Commonly they involve blinking, throat clearing or shoulder shrugging.
- Although his father has epilepsy this is unlikely to be epilepsy as the shouting of swear words is a typical vocal tic of Tourette's.

Huntington's disease

- It is a neurodegenerative genetic disorder that is autosomal dominant.
- The features are of choreiform movements, problems with coordination and walking, behavioural and psychiatric problems.
- The disease leads eventually to dementia and premature death.

Rett syndrome

- Predominantly affects females and is a neurodevelopment disorder of the grey matter.
- The sufferers have small hands and feet with deceleration of head growth.
- Many patients are epileptic, display repetitive hand movements, rarely develop speech and also have GI problems, such as constipation.

Chronic Fatigue Syndrome: diagnosed after at least 4 months of disabling fatigue affecting mental and physical function more than 50% of the time in the absence of other disease which may explain symptoms

Epidemiology

- More common in ♀s
- Past psychiatric history has not been shown to be a risk factor

Fatigue is the central feature, **other recognised features** include:

- Sleep problems, such as insomnia, hypersomnia, unrefreshing sleep, a disturbed sleep–wake cycle
- Muscle and/or joint pains
- Headaches
- Painful lymph nodes without enlargement
- Sore throat
- Cognitive dysfunction, such as difficulty thinking, inability to concentrate, impairment of short-term memory, and difficulties with word-finding
- Physical or mental exertion makes symptoms worse
- General malaise or ‘flu-like’ symptoms
- Dizziness
- Nausea
- Palpitations

Investigation

- NICE guidelines suggest carrying out a large number of screening blood tests to exclude other pathology e.g. FBC, U&E, LFT, glucose, TFT, ESR, CRP, calcium, CK, ferritin*, coeliac screening and also urinalysis

Management

- CBT - very effective, number needed to treat = 2
- Graded exercise therapy - a formal supervised program, do not advise to go to the gym
- 'Pacing' - organising activities to avoid tiring
- Low-dose amitriptyline may be useful for poor sleep
- Referral to a pain management clinic if pain is a predominant feature

Serotonin syndrome

Causes:

- Monoamine oxidase inhibitors MAOI
- SSRIs (سؤال الامتحان) plus sumatriptan)
- Ecstasy
- Amphetamines

Features:

- **neuromuscular excitation** e.g. hyperreflexia, tremor, myoclonus, incoordination, seizures,
- **autonomic** excitation (e.g. hyperthermia, tachycardia, HTN, salivation)
- altered **mental** state e.g. confusion, anxiety, hypomania, agitation, coma

Treatment: cyproheptadine